

20-114-3-51/60

Clayey Minerals in the Callovian Deposits of the Sarata Exploratory Well

ASSOCIATION: All-Union Scientific Research Institut for Geological
Survey of Petroleum (Vsesoyuznyy nauchno-issledovatel'skiy
geologo-razvedochnyy neftyanoy institut)

PRESENTED: November 26, 1956, by N. M. Strakhov, Member of the Academy

SUBMITTED: November 26, 1956

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Clayey Minerals in the Callovian Deposits of the Sarata Exploratory Well

composition of the minerals: between the dark-grey microgranular dolomite weakly clayey calcites, on the one hand, and the dark-grey calcareous (in alternating layers) Callovian clays, on the other hand. As usually assumed, the upper limit runs along the sharp boundary between the dark-grey solid viscous clays, and the dark-grey clayey-calcareous rocks of the Oxford-Kimeridge epoch, which is full of ferriferous oolites and large pelecypoda shells. According to the composition of the clay minerals, the Callovian mass is divided here into two packages of layers of unequal thickness: the lower 973 m to 944 m (thickness 29 m), and the upper from 944 m to 879.24 m (thickness 64.76 m). The mountain elevations of the Dobrudja probably served as sources of abrasion. The formation of the Callovian clay mass took place as result of the sedimentation of finely elastic material in a basin, which - in spite of sporadic elevations - was gradually deepened during the course of the entire Callovian epoch. In connection herewith, the source of abrasion was gradually eliminated, and there took place in the basin an accumulation of more and more dispersed and, towards the end of the Callovian epoch, even chemically considerably transformed material. There are 1 figure and 7 references, all of which are Soviet.

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20-114-3-51/60

AUTHORS: Kotel'nikov, D. D., Radyushkina, T. T., Dmitriyeva, L. Ya.

TITLE: Clayey Minerals in the Callovian Deposits of the Sarata Exploratory Well (Glinistyye mineraly v otlozheniyakh kelloveyskogo vozrasta Saratskoy opornoy skvazhiny)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 3, pp. 637-640 (USSR)

ABSTRACT: As was determined in 1946 by deep drillings in the Moldavian area, the Jurassic sediments of this region are widely distributed and in places they reach a thickness of over 3000 m. The materials obtained during these drillings made it possible to work out a more precise picture of the tectonic structure, to elaborate on the stratigraphic features, and to characterize the lithographic composition. The clay deposits, however, have not been described at all from a mineralogical point of view. The paper under review proposes to close this gap in the scientific research work dealing with the above area. The clayey mass of the Callovian age in the Sarata well is situated, with a large stratigraphic interruption, on an eroded surface of the Upper Silurian sediments. Their lower limit is drawn along the sharp change in the lithographical

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RATYEV, M.A.; KOTEL'NIKOV, D.D.

New finds of α -sepiolites in the Carboniferous of the Russian Platform.
Dokl. AN SSSR 109 no.1:191-194 J1-Ag '56. (MLRA 9:10)

1. Geologicheskii institut Akademii nauk SSSR. Predstavleno akademikom
N.M. Strakhovym.
(Russian Platform--Meerschaum)

construction of cooling towers and caliche canals
strongly recommended, especially in the northern part of
the country. Six diagrams.

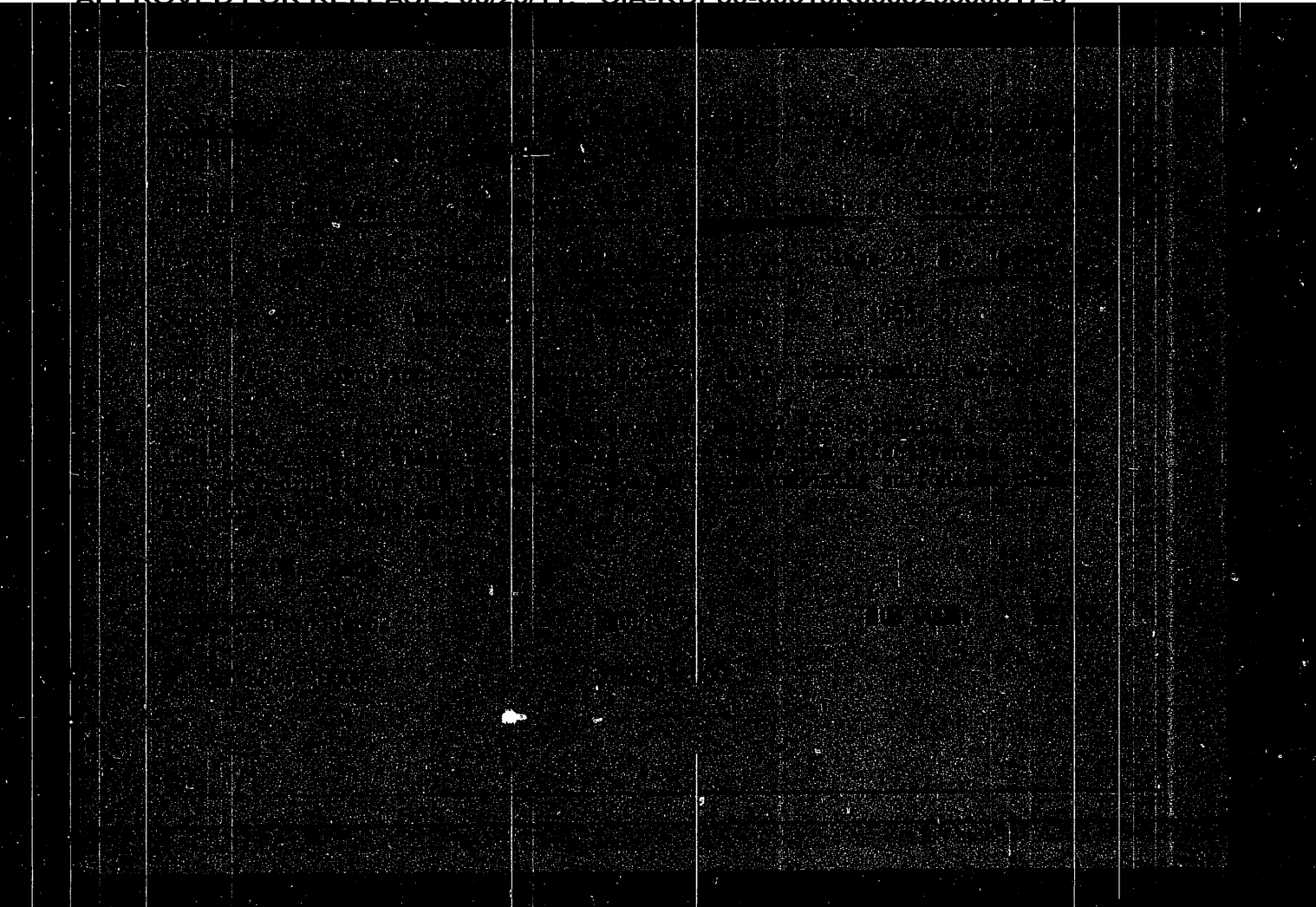
Institution: None

Submitted : No date

KOTEL'NIKOV, D.A., inzhener.

Large-panel roofing on steel girders. Elek.sta. 24 no.8:24-27 Ag '53.
(MIRA 6:8)
(Roofs)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300017-6



PERCHENKO, A.A.; KOTEL'NIKOV, B.P.; MARCHENKO, M.A.

Oxidation of a mixture of solid and liquid paraffins to acids.
Khim. i tekhn. topl. i masel 9 no.2:22-27 F '64. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut
sinteticheskikh zhirozameniteley.

Rapid spectrophotometric method...

S/032/62/028/004/006/026
B101/B113

mg of KOH/g (relative error $\pm 3.3\%$). Photometric determination at 357, 370, 344, or 334 m μ is also possible, but results are less accurate. There are 1 table and 5 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut po sinteticheskim zhiro-zamenitelyam i moyushchim sredstvam (Scientific Research Institute of Synthetic Fat Substitutes and Detergents)

S/032/62/028/004/006/026
B101/B113

AUTHORS: Kotel'nikov, B. P., Prokhorova, Z. A., and Gerasimova, N. T.

TITLE: Rapid spectrophotometric method for controlling the oxidation of paraffin hydrocarbons to alcohols

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 4, 1962, 441-442

TEXT: To control the oxidation of liquid paraffin hydrocarbons to aliphatic alcohols by boric acid, a photometric method has been developed which, owing to its short duration, permits a continuous control of the oxidation process. Boric acid and borates are washed out of the oxidation product; the alcohols are converted to alkyl nitrites by $\text{NaNO}_2 + \text{HCl}$, and absorption is measured at 392.5 m μ . To eliminate the absorption caused by other oxidation products, the "oxidate" treated with NaNO_2 is dissolved in untreated "oxidate". A linear calibration curve was obtained for the dependence of the hydroxyl number on the optical density. By the method suggested, the hydroxyl number can be determined within 12-15 min with an accuracy of ± 2.2

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KOTEL'NIKOV, B.P.; SHCHERBAKOV, P.M.

Selecting the temperature in gas-liquid chromatographic analysis
of synthetic fatty acids. Trudy NIISZHIMSA no.3:75-79 '62.
(MIRA 16:12)

SHCHERBAKOV, P.M., inzh.; KOTEL'NIKOV, B.P., inzh.; GANIN, Yu.V., inzh.

Determining the individual composition of fatty acids of the
C₁₇ - C₂₀ fraction by the method of gas-liquid chromatography.
Masl. - zhir. prom. 27 no.12:25-27 D '61. (MIRA 14:12)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameni-
teley i moyushchikh sredstv.

(Chromatographic analysis)

(Acids, Fatty--Analysis)

KOTEL'NIKOV, B.P.; PROKHOROVA, Z.A.; GERASIMOVA, N.T.

Rapid spectrophotometric method for controlling the
oxidation of paraffinic hydrocarbons to alcohols. Zav.lab.
28 no.4:441-442 '62. (MIRA 15:5)

1. Nauchno-issledovatel'skiy institut po sinteticheskim
zhirozamenitelyam i moyushchim sredstvam.
(Paraffins) (Alcohols) (Spectrophotometry)

KOTEL'NIKOV, Boris Pavlovich; BOLIYANOVSKIY, Dmitriy Mikhaylovich;
AGEYEV, P.M., red.; GONCHAROVA, Ye.A., tekhn. red.

[First in the country; story of the Shebekino Combine of
Synthetic Fatty Acids and Aliphatic Alcohols]Pervyi v strane;
rasskaz o Shebekinskom kombinatе sinteticheskikh zhirnykh kis-
lot i zhirnykh spirtov. Belgorod, Belgorodskoe knizhnoe izd-
vo, 1961. 49 p. (MIRA 15:8)

1. Direktor Shebekinskogo nauchno-issledovatel'skogo instituta
sinteticheskikh zhirozameniteley i moyushchikh sredstv (for
Kotel'nikov). 2. Glavnyy inzhener kombinata sinteticheskikh
zhirnykh kislot i zhirnykh spirtov (for Bolyanovskiy).
(Shebekino--Oils and fats)

KRYMSKIY, G.A., kand.tekhn.nauk; KOTEL'NIKOV, B.P., inzh.

Concerning the economy of zinc in the manufacture of fuses for
PR-2 fuse boxes. Vest. elektroprom. 31 no.8:20-23 Ag '60.
(MIRA 15'5)

(Electric fuses)

GORODNICHEV, N.P., inzh.; KOTEL'NIKOV, B.P., inzh.

Arrangement of group flows in assembling operations. Vest.
elektroprom. 32 no.10:68-71 0 '61. (MIRA 14:9)
(Assembly-line methods)

BECHTOLD, R.M., inzh.; KOZEL'NIKOV, B.P., inzh.; KANFERNO, A.A., inzh.

Potentiometric method of determining the content of free alkali

Tr. Khimicheskogo nauchno-issledovatel'skogo instituta, 1961, no. 7: 30-31
(IN 14:7)

Khimicheskoe nauchno-issledovatel'skoye institut sinteticheskikh zhировых
masel i moyushchikh sredstv.

(Paraffin wax)

(Saponification)

(Alkalies)

Kotel'nikov, B. P.

GANIN, Yu.V.; KOTEL'NIKOV, B.P., inzh.; MARTYNOVA, E.N.

Determination of the individual composition of the intermediate fractions of synthetic fatty acids by gas-liquid chromatography. Masl.-zhir.prom. 27 no.3:29-32 Mr '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameni-teley i moyushchikh sredstv.
(Acids, Fatty) (Chromatographic analysis)

KOTEL'NIKOV, B.P., inzh.; PROKHOROVA, Z.A., inzh.

Rapid method for determining hydroxyl numbers in some oxidation products of paraffin hydrocarbons from their ultraviolet spectra.
Masl.-zhir.prom. 27 no.1:16-18 Ja '61. (MIRA 14:1)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameniteley
i moyushchikh sredstv.
(Paraffins—Spectra) (Hydroxyl group)

SHCHERBAKOV, P.M.; KOTEL'NIKOV, B.P.; GANIN, Yu.V.

Determining the individual composition of the industrial fractions of C₅ - C₉ synthetic fatty acids by means of gas-liquid chromatography. Khim.i tekhn.topl.i masel 6 no.9:62-65 S '61.

(MIRA 14:10)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameniteley i moyushchikh sredstv.

(Acids, Fatty) (Gas chromatography)

KOTEL'NIKOV, B.P., inzh.

Symposium on gas chromatography in the German Democratic Republic.
Masl.-zhir.prom. 26 no.8:45-46 Ag '60. (MIRA 13;8)
(Gas chromatography--Congresses)

KOTEL'NIKOV, B.P., inzh.; DATSKEVICH, A.A., kand.tekhn.nauk

Method of determining the composition of mixtures of fatty acids
and aliphatic alcohols. Masl.-zhir.prom. 26 no.5:20-26 My '60.
(MIRA 13:12)

(Acids, Fatty) (Alcohols)
(Gas chromatography)

KOTEL'NIKOV, B.P., inzh.; BOZHENOVA, N.I., inzh; PEREL', Z.P., inzh.;
ZAVISTOVSKAYA, M.D., inzh.

Rapid method for determining the content of sodium sulfate in
washing pastes and in the "Novost" powder. Masl.-zhir. prom. 25
no.7:42-43 '59. (MIRA 12:12)

1. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i zhirnykh
spirtov.
(Washing powders--Analysis) (Sodium sulfates)

KOTEL'NIKOV, B. P.

RAYBMAN, N.S., dotsent, kandidat tekhnicheskikh nauk; KOTEL'NIKOV, B.P.,
inzhener.

Precision characteristics and statistical methods of control in an
electroplating shop. Vest.mash.34 no.4:85-89 Ap '54. (MLRA 7:5)
(Electroplating) (Production control)

KOTEL'NIKOV, B.N., inzh.

Investigating fatigue strength of flexible connectors subjected
to varying loading. Vest. mashinostr. 43 no. 7:20-25 J1 '63.
(MIRA 16:8)

(Couplings--Testing)

S/138/60/000/011/003/010
A051/A029

Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

showed that at a torsion moment of $M = 30$ kgm this sleeve works quite reliably, whereby $\tau = 4$ kg/cm². Thus, for VE-2 $\tau = 4$ kg/cm² is the permissible tension. The authors state that the designed type of the high-elastic sleeve can be applied to all fields of the national economy. There are 8 photographs, 5 diagrams, 2 graphs. ✓

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i vsesoyuznyy nauchno-issledovatel'skiy institut pod"yemno-transportnogo mashinostroyeniya (Scientific Research Institute of the Tire Industry and All-Union Scientific Research Institute of the Handling Equipment Industry).

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stability of the elements in static torsion. The approximate value of the shift tensions in the destruction of the element was also estimated. The reductor stand was used for the former and it was noted that the samples became torn in the zone of the lateral part adjacent to the spot fastened by metal bushes (Fig. 11). The most stable element was found to be the VE-2 type. The value of the shift tensions at the moment of destruction of the element was determined by the formula: $\tau_{\text{destr}} = \frac{M_{\text{destr.}}}{2\pi r^2 \delta}$, where τ_{destr}

is the shift tension, kg/cm^2 , M_{destr} is the torsion moment, $\text{kg}\cdot\text{cm}$, r is the distance of the ring section from the rotational axis in cm ; δ is the thickness of the wall in cm . (Abstractor's note: Subscript destr.

(destruction) is a translation from the Russian *разрушения* (razrusheniya)). The experimental samples were destroyed at the following torsion moments (kgcm): VE-1 22,500, VE-2 36,000, VE-3 2,250. At these values the tension moments of shift will be: $\tau_{\text{VE-1}} = 24.7 \text{ kg/cm}^2$, etc. The experimental data

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| | |
|---------|---------------------|
| grading | torsion moment, kgm |
| VE-2 | 225 |
| VE-3 | 165 |

Experimental data also showed that the resilient element of the sleeve can function in short-time overloads with a torsion moment of up to 80 kgm. The linear deformations of the element were tested at various loads and the values and nature of their distribution along the shape of the element were determined (Fig. 8,9). The experimental data showed that at a moment equal to 25 kgm the expansion deformation (depending on the section of the element being tested and the rubber type was found to fluctuate between 1.5-6%. When the sleeve is loaded by a torsion moment equal to a three-fold working moment, i.e., 75 kgm, the deformation depending on the rubber type increases to 16.5% in different sections. Fig. 10 (a,b) gives data on the deformation distribution in various meridional sections. Experimental data also revealed the zone and nature of destruction, when testing the

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clamping bush in mm. The sleeve was further tested on the WC-2 (IS-2) inertia stand (Fig. 5) to determine the reliability of the element under conditions of repeated starting and reversions of the sleeve. The relationship of the torsion angle of the sleeve to the torsion moment for these elements was further investigated. It was found (Fig. 6) that this relationship is linear. For comparative purpose a curve of the МУВТ (МУВП) GOST 2229-55 pin sleeve coupling was introduced into the graph. It was noted that the latter type sleeve has a higher hardness value than the highly-elastic sleeve. Further tests were made of the conditions of loading on the sleeve, whereby the resilient rubber element of the sleeve was found to lose its stability. It was established experimentally that in transmitting a rated three-fold moment by the sleeve the indicated resilient element does not lose its stability. Comparative data on the loss of stability in the case of different rubber grades are listed:

| grading | torsion moment, kgm |
|---------|---------------------|
| VE-1 | 180 |

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torsion moment was determined from the showings of the dynamometer and calculated according to the formula: $M = P_d \cdot i_r \cdot \eta_r \cdot \frac{D}{2}$, where P_d is the force on the dynamometer in kg, i_r is the transmission ratio of the reductor, η_r is the efficiency factor of the reductor = 0.94, D is the diameter of the disk on which the cable was wound in m. The maximum torsion moment was determined from the loss of the geometrical shape of the resilient element (stability) under a given load. The angle of torsion of the element was found to be the angle of rotation of one of the semi-sleeves relative to the second one at a given value of the torsion moment. The angle of the relative rotation was measured according to the circumference arc of the clamping bush. The arcs were measured with a steel ruler and the values of these deflections were converted to degrees according to the formula: $\varphi = \frac{L \cdot 3600}{\pi \cdot D}$, where φ is the torsion angle of the element in degrees, L is the magnitude of deflection along the circumference arc of the clamping bush, in mm, D is the diameter of the

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Development of a High-Elastic Sleeve Design and Investigation Into Some of Its Characteristics

accuracy and can be assembled even in repair shops. The semi-sleeves are made of C4-15-32 (SCh) pig iron according to ГОСТ 1412-54 (GOST 1412-54) or from structural steel. The selection of the material is determined by the magnitude of the torsion moment transmitted by the sleeve. The experimental samples were prepared according to a technique which takes into account the special features of the resilient rubber element of the sleeve. The assembly was conducted on a hard pole (Fig 3). The following rubber grades were investigated for determining the characteristic features: БЭ-1 (VE-1), БЭ-2 (VE-2) and БЭ-3 (VE-3) made of three types of rubber based on natural and synthetic rubber. The following features were recorded: the maximum torsion moment, torsion angle of the sleeve, angle of curvature of the shaft axes, the magnitude of the radial shift of the joining shaft axes. The experimental setup consisted of a reducer stand (Fig 4) having two РМ-400 (RM-400) reducers and an inertia stand. This stand was used for static tests of the experimental samples of the resilient rubber elements of the sleeve. The magnitude of the

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setting up of the mechanism parts be compensated for and the percussions be softened, which arise when the motor is put into operation. The coupling sleeve has the following design: It consists of a resilient rubber element (1) (Fig.1) similar in shape to an automobile hood, two hard semi-sleeves (2), two clamp bushes (3) and fastening pins. The element (1) is placed between the two semi-sleeves and the fastening pins, entering grooved apertures of the semi-sleeves, are clamped on the sides by the bushes. The torsion moment is transmitted due to friction force occurring in the compression zone of the resilient element's side. The main element of the sleeve is a resilient rubber casing (Fig.2) representing a flexible and elastic connection of two rotating parts transmitting the torsion moment. In order to assemble the resilient rubber element without any axial shift of the parts being joined in the mechanism, the latter is cut along its cross section in some part of the circumference. The metallic parts of the sleeve do not require in processing any great

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AUTHORS: Klaz, M.Yu., Kotel'nikov, B.N.

TITLE: Development of a High-Elastic Sleeve Design and Investigation
Into Some of Its Characteristics

PERIODICAL: Kauchuk i rezina, 1960, No. 11, pp. 11-18

TEXT: The Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry) in cooperation with the Vsesoyuznyy nauchno-issledovatel'skiy institut pod'yemno-transportnogo mashinostroyeniya (All-Union Scientific Research Institute of the Handling Equipment Industry) have designed a high-elastic coupling sleeve 260 x 70 mm in size transmitting a working torsion moment of up to 30 kgm and allowing for a short-time overload of up to 75-80 kgm. The coupling sleeve is designed to transmit medium powers and allows for a radial shift of the shaft of up to 3 mm, an axial shift of up to 4 mm and an angular shift of up to 1.5° . The authors stress the advantages of a highly-elastic coupling sleeve for the case of crane mechanisms, in joining the electric motor to the reducer so that the inaccuracies occurring in the Card 1/18

AUTHOR: Kotel'nikov, B.B. SOV/113-59-2-12/20

TITLE: A Stand for Testing Leaf Springs for Wear and Fatigue (Stand dlya ispytaniy listovykh ressor na iznos i ustalost')

PERIODICAL: Avtomobil'naya promyshlennost', 1959, Nr 2, p 26 (USSR)

ABSTRACT: The author describes his own design of a new stand for testing automobile leaf springs constructed at the Gor'kiy Automobile Plant. The stand consists of a base plate with three columns. The middle column contains a slider having an adjustable stroke up to 300 mm and driven by electric motor via a crankshaft and a connecting rod. The two other columns are installed at opposite sides and have two pairs of brackets on which rest the ends of springs under test. The stand permits concurrent testing of four springs of 800 - 2,000 mm length. Moreover, the spring test period is over 6 times shorter: previously it took 90 - 100 hours for one spring and 300 - 400 hours for a set of 3-4 springs. There are 2 diagrams.

ASSOCIATION: Gor'kovskiy avtozavod (Gor'kiy Automobile Plant)

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KOTEL'NIKOV, B.B.

Automobile road test recorders. Avt.i trakt.prom. no.4:29 Ap '57.
(MLRA 10:5)

1.Gor'kovskiy avtozavod imeni Molotova.
(Automobiles--Apparatus and supplies)

KOTEL'NIKOV, A.V.

Conditions for the applicability of standard working formulas for the protection of underground structures from corrosion. Transp. i khran. nefti i nefteprod. no.11:7-11 '64.

(MIRA 18:1)

1. Gosudarstvennyy ordena Trudovogo Krasnogo Znameni proyektno-izyskatel'skiy institut elektrifikatsii zheleznnykh dorog i energeticheskikh ustanovok Gosudarstvennogo proizvodstvennogo komiteta po transportnomu stroitel'stvu SSSR.

KOTEL'NIKOV, A.V.

Technical and economic calculation of anode grounding. Gaz. delo
no.7:31-36 '64. (MIRA 17:8)

1. Gosudarstvennyy ordena Trudovogo Krasnogo Znameni proyektno-
izyskatel'skiy institut elektrifikatsii zheleznykh dorog i
energeticheskikh ustanovok Gosudarstvennogo proizvodstvennogo
komiteta po transportnomu stroitel'stvu SSSR.

ORLOV, Boris Viktorovich, doktor tekhn. nauk, prof.; MAZING,
Georgiy Yur'yevich, kand. tekhn. nauk, dots.; PANICHKIN,
I.A., doktor tekhn. nauk, retsenzent; SHELUKHIN, G.G.,
doktor tekhn. nauk, retsenzent; GOROKHOV, M.S., doktor
tekhn. nauk, retsenzent; KOTEL'NIKOV, A.V., kand. tekhn.
nauk, red.

[Thermodynamic and ballistic bases for the design of
solid-propellant rocket engines] Termodinamicheskie i bal-
listicheskie osnovy proektirovaniia raketnykh dvigatelei
na tverdom toplive. Moskva, Mashinostroenie, 1964. 406 p.
(MIRA 17:11)

KOTEL'NIKOV, A.P.

X-ray diffraction study of the softening of beryllium bronze due to turning following thermal treatment. Trudy LIEI no.29:95-101 [i.e. 39] '62. (MIRA 16:6)

(X-ray diffraction examination) (Dislocations in metals)
(Bronze--Testing)

KOTEL'NIKOV, A.P.; TERMINASOV, Yu.S.

X-ray diffraction study of the thermal stability of distortions
of the crystalline structure of steel as dependent on the degree
of deformation and the chemical composition of the steel when
subjected to turning. Trudy LIEI no.29 [i.e. 39]:89-94 '62.
(MIRA 16:6)
(X-ray diffraction examination) (Dislocations in metals)
(Steel--Testing)

KOTEL'NIKOV, A.P.; TERMINASOV, Yu.S.

X-ray diffraction study of the thermal stability of distortions
of the crystalline structure of 45 Kh steel due to turning.
Trudy LIEI no.29:80-88 [i.e. 39] '62. (MIRA 16:6)
(X-ray diffraction examination) (Dislocations in metals)
(Steel--Testing)

X-ray investigation of the effect ...

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not depend on the degree of cold-hardening. In the studied range of annealing temperatures a complete recovery of properties was not observed. Inconsiderable changes in the chemical composition of heats leads to some difference in the behavior of steel at annealing. There are 5 references.

A. Barareko ✓

[Abstracter's note: Complete translation]

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S/137/62/000/004/107/201
A052/A101

AUTHOR: Kotel'nikov, A. P.

TITLE: X-ray investigation of the effect of the degree of deformation and chemical composition on the thermal stability of distortions

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 39, abstract 4I224 ("Sb. nauchn. rabot Kafedry optiki i Kafedry eksperm. fiz. Kazakhsk. un-t", no. 2, 1960, 119-126)

TEXT: The changes in the substructure of 45X (45Kh) steel of two heats in the process of hardening at turning samples under different cutting conditions and in the process of softening at annealing at 350 - 650°C were evaluated by the method of harmonic analysis of the form of 310 reflex. The hardening of samples at power cutting increased with the feed and was also accompanied by a growth of microdistortions $\Delta\alpha/\alpha$ and by a decrease of dimensions of coherent scattering regions. In the first stages of annealing the recovery processes depend on the degree of cold-hardening of the samples and take a more intensive course in samples with a higher degree of deformation. At temperatures $> 400^\circ\text{C}$ the recovery of properties of samples with different degrees of deformation does

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SOV/137-57-10-20528
X-ray Diffraction Phase Analysis by the Method of Mixing (cont.)

the X-ray diffraction pattern of the specimen analyzed. S_1 is the degree of darkening of the line of the second phase on the same X-ray diffraction pattern, and S_2 and S_2 [the original Russian text has ρ_1 and ρ_2 here, which are obviously erroneous. Transl. Note.] are the corresponding degrees of darkening on the X-ray diffraction pattern of the sample containing the admixture of the phase being determined. The accuracy of the method is 5%. The error for the method is greater on samples which contain phases with greatly different values for the coefficient of absorption. In the case of an analysis of multi-component systems, three X-ray diffraction patterns should be photographed (one of the sample analyzed and one each of the samples with two different admixtures of the phase which is being determined).

M. N.

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 306 (USSR) SOV/137-57-10-20528

AUTHOR: Kotel'nikov, A. P.

TITLE: X-ray Diffraction Phase Analysis by the Method of Mixing in of Additional Amounts of the Component Analyzed (Rentgenograficheskiy fazovyy analiz metodom podmeshivaniya opredelyayemoy sostavlyayushchey)

PERIODICAL: Izv. AN KazSSR, ser. khim., 1957, Nr 1, pp 99-101

ABSTRACT: The author has developed a version of the method of admixing which consists of adding a small amount (of the order of a few per cent) of the pure phase analyzed. Two X-ray diffraction patterns are taken, one of the test sample investigated and one of the sample containing the admixture of the phase analyzed. It is shown that the percentage P of the phase sought (in a two-phase specimen) is determined, in this case, by the following formulae:

$$p = 100 \gamma / (\delta' / \delta - 1); \gamma = q/Q_0; \delta' = S_1/S_2; \delta = S_1/S_2,$$

where Q_0 is the amount of the sample in grams, q is the amount of the admixture of the phase being determined in grams, S_1 is the degree of darkening of the line of the phase being determined on

Card 1/2

KOTELNIKOV, A. P.

Author: Kotelnikov, A. P.

Title: Certain applications of Lobachevskii's theories in mechanics and physics (Nekotorye primeneniia idei Lobachevskogo v mekhanike i fizike) 86 p.

City: Moscow

Publisher: State Publication of Technical-Theoretical Literature

Date: 1950

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 4, No. 5, p. 312

Call No: QC70.K68

Subject: Lobachevskii, Nikolai Ivanovich, 1793-1856.

KOTEL'NIKOV, A. P.

Tochki burmestra, ikh svoystva i postroyeniye. Matem. SB., 34 (1927), 207-343.

Obzor sochineniya O nachalakh geometrii. V Kn. N.I. Lobachevskiy, Polnoye Sobr. Soch., T. I.M. - L. GTTI (1946).

Istoriko-Bibliogra ficheskiye svedeniya o sochinenii * O nachalakh geometrii. V KN. N.I. Lobachevskiy, Polnoye sobr. soch., T. I.M. - L., GTTI (1946).

SO: Mathematics in the USSR, 1917-1947

Edited by Kurosh, A. G.,

Markusevich, A. I.

Rashevskiy, P. K.

Moscow-Leningrad, 1948

KOTEL'NIKOV, A.M.; SLASHCHEV, V.S.

Second Conference of Young Geographers of Siberia and the
Far East. Zap. Zabaik. otd. Geog. ob-va SSSR no. 24:
137-139 '64 (MIRA 19:1)

KOTELNITKOV, A. K.

"Fresnel's Formulae Applied to Radiophysics"

UD. Tr. Inst. Elektrotekhn. AN Ukrainskoy SSR, No 11, 1954, pp 23-28

Fresnel's formulae are derived from Maxwell's equations for a plane wave. Expressions for the parallel and the perpendicular components E and H are obtained. Using the boundary conditions on the relations between E and H the reflection index is expressed in terms of the incident and the reflected angles and the parameters of the two media. (RZM:12, No 2, 1955)

SO: Sum. 402, 12 May 55

KOTEL'NIKOV, A.A., mladshiy nauchnyy sotrudnik

Keeping an open place in the ice. Nauch. trudy TSNIIMOD no.11:
140-147 '61. (MIRA 17:9)

1. Laboratoriya mekhanizatsii skladov syr'ya i pilomaterialov
TSentral'nogo nauchno-issledovatel'skogo instituta mekhanicheskoy
obrabotki drevesiny.

KOTEL'NIKOV, A.A., inzh.; GRIGOR'YEVA, N.V., inzh.-ekonomist; CHIGIN, V.P.,
inzh.

Use of excavating machinery in the construction of the Irtys'-
Karaganda Canal. Gidr. 1 mel. 17 no.3:37-44. Mr '65. (MIRA 18:4)

KOTEL'NIKOV, A.A. [Katsel'nikau, A.A.]; BEGUN, Z.A. [Biahun, Z.A.];
MALYUKOVICH, G.F. [Maliukovich, H.F.]

Roentgenokymographic characteristics of the contractile ability
of the heart muscle in experimental myocardial infarct. Vestsi
AN BSSR. Ser. biial. nav. no.4:80-84 '63. (MIRA 17:8)

ANISHCHENKO, A.K.; KOTIL'NIKOV, A.K.; VYALZHEV, T.I.

Evaluation of mineral deficiency in poultry. Veterinaria 39
no.4:68-70 A; '62. (RDA 17:10)

1. Belorusskiy nauchno-issledovatel'skiy veterinarnyy institut.

TUZOVA, R.V., kand.veterin.nauk; TROITSKIY, N.A., kand.veterin.nauk;
KOTEL'NIKOV, A.A., kand.veterin.nauk

Use of radioactive phosphorus (P^{32}) for studying the body
reactivity of healthy and tuberculosis infected chickens.
Trudy NIVI 1:44-47 '60. (MIRA 15:10)
(Tuberculosis in poultry) (Phosphorus—Isotopes)

ANISHCHENKO, A. K., KOTEL'NIKOV, A. A. and VYALYSHEVA, T. I. (Belorussian Scientific Research Veterinary Institute)

"Evaluation of mineral insufficiency in hens"

Veterinariya, vol. 39, no. 4, April 1962 p. 68

KOTEL'NIKOV, A.A., kand.veterinarnykh nauk; KORNILOV, V.A., veterinarnyy
vrach

Movable support for X-ray RU-760 apparatus. Veterinariia 37
no.9:58-59 S '60. (MIRA 14:11)

1. Belorusskiy nauchno-issledovatel'skiy veterinarnyy institut
(for Kotel'nikov). 2. Borisovskaya rayvetlechebnitsa, Minskaya
oblast' (for Kornilov).

(X-rays--Apparatus and supplies)

KOTEL'NIKOV, A. A. (Candidate of Veterinary Sciences), Belorussian NIVI), KORNILOV, V.A.
(Veterinary Surgeon, Borisov Raion Veterinary Hospital, Minsk Oblast').

"Mobile stand for the roentgen apparatus RU-760."

Veterinariya, Vol. 37, No. 9, p. 58, 1960.

KOTEL'NIKOV, A. A.

KOTEL'NIKOV, A. A. "The methodology and technique of roentgenography of the skeleton of cattle extremities under the conditions of an animal-husbandry farm." Leningrad Veterinary Inst, Min Higher Education USSR. Leningrad, 1956. (Dissertation for the Degree of Candidate in Veterinary Science).

So: Knizhnaya letopis', No. 15, 1956. Moscow.

GANZBURG, M., inzh.; KANTOR, D., inzh.; KOTEL'NIKOV, A., inzh.

The "IAuza-10" stereophonic magnetic tape recorder. Radio
no.2:41-45 F '63. (MIRA 16:2)

(Magnetic recorders and recording)
(Stereophonic sound systems)

GANZBURG, M.; KANTOR, D.; KOTEL'NIKOV, A.; KUPTSOV, A.

"IAuza-5" magnetic tape recorder. Radio no.12:27-30 D '60.
(MIRA 14:1)

(Magnetic recorders and recording)

KOTEL'NIKOV, A.

Additions and the violation of financial discipline in agricultural construction. Den.i kred. 19 no.10:72-73 0 '61. (MIRA 14:10)

1. Nachal'nik tekhnicheskogo sektora Bryanskoy kontory Gosbanka.
(Bryansk Province--Banks and banking)
(Bryansk Province--Agriculture--Finance)
(Farm buildings)

TOLSTIKOV, V., komandir roty, starshiy leytenant; DUBININ, N., pod-
polkovnik; KOTEL'NIKOV, A., kapitan; SAVECHENKOV, leytenant;
SEROKHVESTOV, N., komandir roty, gvardii kapitan; DEMIDOV, A.,
podpolkovnik; CHIRKOV, N., komandir roty, kapitan; DERZHANOV-
SKIY, S., komandir roty, gvardii kapitan; SOKOLOV, A.,
mladshiy serzhant

Solution of tactical problems published in no. 8. Voen. vest. 38
no. 12:41-43 D '58. (MIRA 12:1)

(Tactics)

LUKANTSEV, L.; KOTEL'NIKOV, A.

Work of the Gomel' branch of the All-Union Phthisiologists'
Society for 1957. Zdrav.Belor. 4 no.3:76 Mr '58. (MIRA 13:7)
(GOMEL--TUBERCULOSIS)

KOTELKOVA, K. P.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Analytical Chemistry

(3) chem
✓ Determination of the water content of some alcohols.
N. Z. Kotelkov and K. P. Kotelkova (Saratov Agr. Inst.).
J. Anal. Chem. (U.S.S.R.), 7, 88-89 (1952) (Eng. transla-
tion).--See C.A. 47, 1530f.

9-2-54
H. H.
H. H.

KOTELKOVA, K. P.

USSR/Chemistry - Hydrocarbons

Mar/Apr 52

"The Quantitative Determination of the Dehydration of Some Alcohols," N. Z. Kotelkov, K. P. Kotelkova, Saratov Agr Inst

"Zhur Analit Khim" Vol VII, No 2, pp 78-83

The expts were conducted on the catalytic dehydration of ethyl, isopropyl, and propyl alcs. The connection between the percentual compn and the index of refraction of binary aq alc mixts was studied. The refraction method can be used successfully for quant detn of the deg of dehydration of some alcs, especially when the dehydration exceeds 40-60 percent.

209T10

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|---|--|-------|--|------|--|----------|--|
| | | NOTES | | DATE | | PAGE NO. | |
| KORNIKOVA, K. F. | | A-1 | | | | | |
| <p>Abstract:</p> <p>Determination of low chlorination. K. F. Kornikova (J. Appl. Chem. Russ., 1950, equal vol. of 0.4% AgNO₃ in the solution containing 0.1% the turbidity due to AgCl for 1 hr. later, using the method stated described. For same vol. of NaOH is also added.</p> <p>Concentrations of and K. F. Kornikova R. 1950—1951.—An Ag-NH₄, is added to 0.0005M CX, and reaction is determined photoelectric nephelometer. Solutions are equal H. T.</p> | | | | | | | |
| <p>ASAC-SLA METALLURGICAL LITERATURE CLASSIFICATION</p> <p>FROM STEVENS</p> <p>ISSUED BY THE DIVISION OF RESEARCH</p> <p>RECEIVED</p> <p>LIBRARY ONE COPY</p> | | | | | | | |

L 3372-66

ACCESSION NR: AT5020486

ENCLOSURE: 01

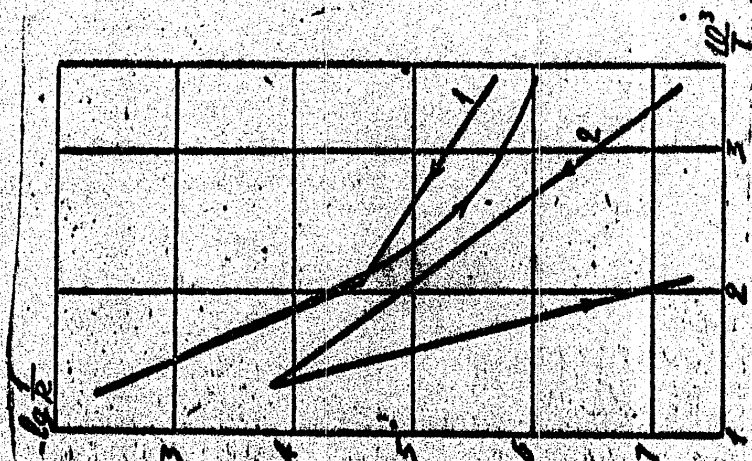


Fig. 1. Resistance versus temperature.
Curve 1--heating in air;
curve 2--heating in vacuum
of 10-2 mm

Card 3/3 *md*

L 3372-66

ACCESSION NR: AT5020486

ENCLOSURE: 01

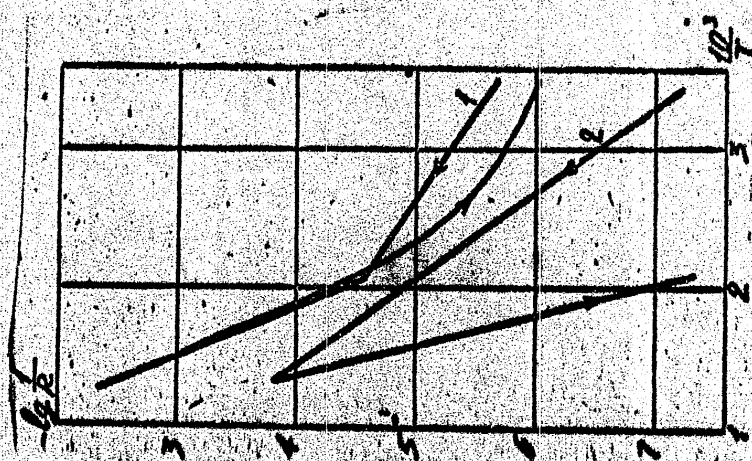


Fig. 1. Resistance versus temperature.
Curve 1--heating in air;
curve 2--heating in vacuum
of 10-2 mm

Card 3/3 *ml*

L 3372-66

ACCESSION NR: AT5020486

diameter of 50-100 μ either directly or with a bridge. It was found that the nature of the curves of resistance versus temperature is greatly dependent upon moisture content in the low-temperature region, that resistance is greatly reduced by reduction of the oxygen partial pressure with evacuation of the surrounding air (see Fig. 1 on the Enclosure), and that penetration of the specimens by oxygen is determined by diffusion processes. Orig. art. has: 6 graphs.

ASSOCIATION: none

SUBMITTED: 06Oct64

ENCL: 01

SUB CODE: CC, EM

NO REF SOV: 007

OTHER: 008

Card 2/3

L 3372-66 EWT(m)/EWP(w)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) JD/HW/GS

ACCESSION NR: AT5020486

UR/0000/64/000/000/0397/0404

AUTHORS: Kir'yashkina, Z. I.; Kotelkov, V. N.

57
B+1

TITLE: The effect of a gaseous medium on the electrical conductivity of nickelous oxide

SOURCE: Mezhvuzovskaya nauchno-tekhnicheskaya konferentsiya po fizike poluprovodnikov (poverkhnostnyye i kontaktnyye yavleniya). Tomsk, 1962.

Poverkhnostnyye i kontaktnyye yavleniya v poluprovodnikakh (Surface and contact phenomena in semiconductors). Tomsk, Izd-vo Tomskogo univ., 1964, 397-404

TOPIC TAGS: nickel compound, electric property, nichrome, nitrogen, oxygen, electric resistance

ABSTRACT: Tests were performed to determine the effect of various gaseous media on the electrical conductivity of nickelous oxide. The work was done to explain both the isothermal changes in conductivity that occur in nickelous oxide and certain characteristics of the thermal change in conductivity. Specimens of nickelous oxide in the form of balls with a diameter of 1-2 mm were heated by coils of Nichrome wire in atmospheres of nitrogen, air of varying moisture content, and in a vacuum, and resistance was measured through platinum electrodes with a

Card 1/3

Measurement of the Resistance of Powders With Good
Conductivity in the Process of Pressing

SOV/32-24-9-22/53

specific resistance of an active accumulator mass during
the process of pressing is given. There are 2 figures.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet im.N.G.Chernyshevskogo
(Saratov State University imeni N.G.Chernyshevskiy)

Card 2/2

AUTHOR: Kotelkov, V. N. SOV/32-24-9-22/53

TITLE: Measurement of the Resistance of Powders With Good Conductivity in the Process of Pressing (Izmereniye soprotivleniya khorosho provodyashchikh poroshkov v protsesse pressovaniya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 9, pp 1095 - 1096 (USSR)

ABSTRACT: The determination of the resistance of conductive powders by the method of two measurements in layers of different thickness does not always lead to satisfactory result. This is due to the contact resistance between the electrodes and the substance. A mold was constructed which makes it possible to measure the resistance directly during the process of pressing by the compensation method, thus eliminating the influence of the contact resistance. The apparatus, consists in principle of a tripartite ebonite cylinder with the compensation electrodes fitted into the segment interspaces while the powder is filled in by the central opening. Pressing is carried out by two steel stamps. A diagram showing the modification of the

Card 1/2

KOTELKOV, N. Z.; KOTELKOV, V. N.;

A unit for the potentiometric determination of pH. Zav. lab.
21 no. 4:501 '55. (MLRA 8:6)

1. Saratovskiy sel'skokhozyaystvennyy institut
(Potentiometric analysis)(Hydrogen-ion concentration)

BILENKO, D.I.; DEMIDOV, V.K.; KOTELKOV, V.N.; NAZVANOV, V.F.;
NOSOVA, V.A.; ORNATSKAYA, Z.I.; ROKAKH, A.G.; SVERDLOVA,
A.M.; KAPSHAL', G.G.; KIR'YASHKINA, Z.I., dots., red.;
VINNIKOVA, I.A., red.

[Textbook for practical studies on the physics of semiconductors]
Rukovodstvo k prakticheskim zaniatiyam po fizike poluprovodnikov;
uchebnoe posobie. [Saratov], Saratovskii univ., 1964. 115 p
(MIRA 18:11)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300017-6

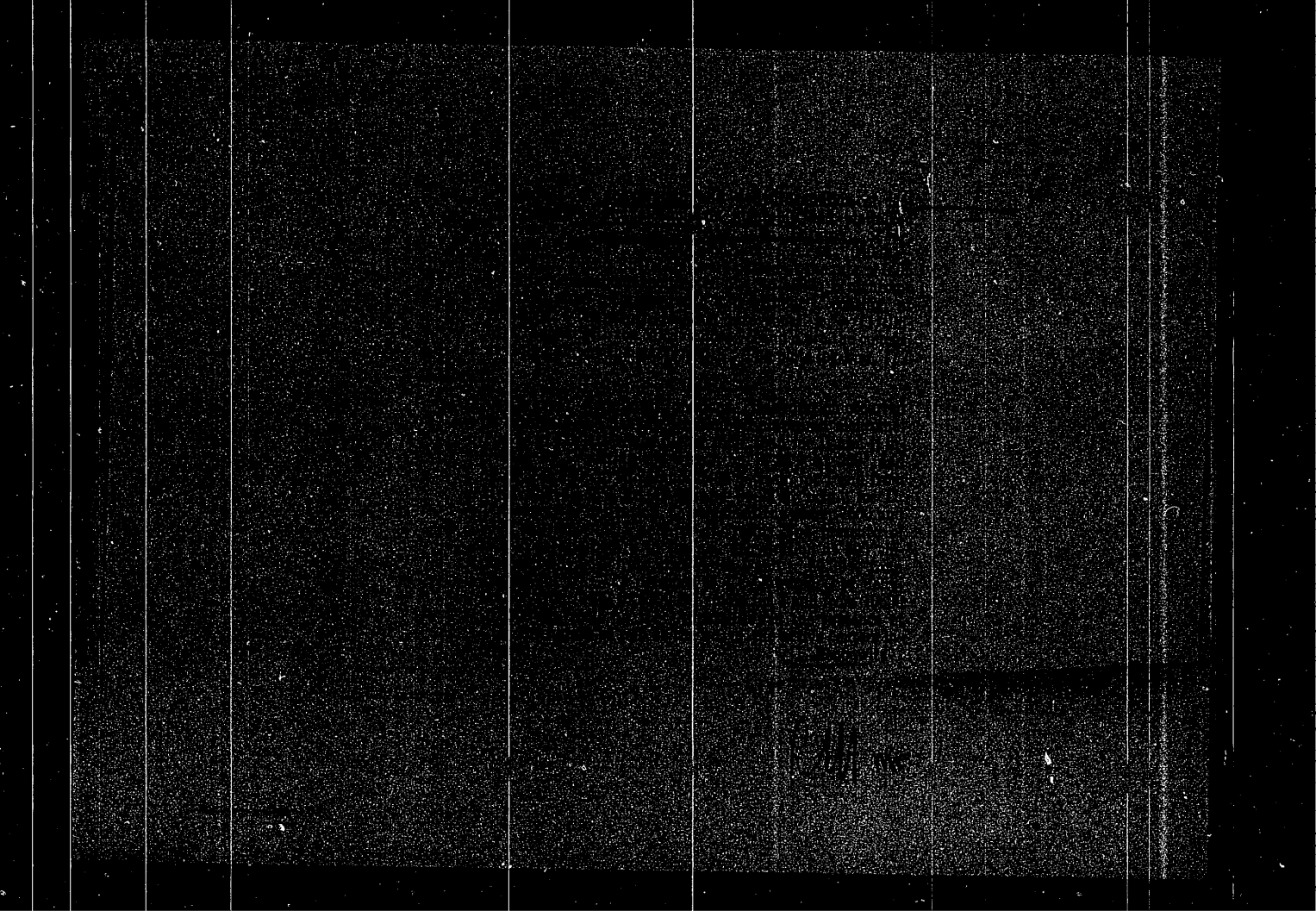


KOTELKOV, N.Z.

Catalysis and decomposition of isopropyl and n.-butyl alcohols over
nichrome based on gas analysis data. Zhur.prikl.khim. 30 no.3:461-465
Mr '57. (MLRA 10:5)

1.Kafedra analiticheskoy, fizicheskoy i kolloidnoy khimii Saratovskogo
sel'skokhozyaystvennogo instituta.
(Isobutyl alcohol) (Isopropyl alcohol)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300017-6



KOTEIKOV N2

Poisoning of nichrome and platinumized nichrome by arsenic
 N. M. Kotlikov (Am. Inst. Sci. Res., Moscow, U.S.S.R.)
 Trans. 24, 1106 (1964).—The poisoning of nichrome and
 platinumized and palladium-platinized nichrome catalysts by AsH_3
 and H_2S was studied in the processes of catalytic oxidation
 of H_2 and catalytic dehydrogenation of $iso-C_3H_7OH$. The
 presence of 2% AsH_3 in air + 1.32–1.4% H_2 mixture lowered
 the conversion of H_2 over the different catalysts as follows:
 nichrome, from 16 to 1.4% at 282° and from 72.5 to 5.7%
 at 310°; platinumized nichrome, from 58.2 to 7.1% at 247°
 and from 90.7 to 8.4% at 280°; palladium-platinized (for compar-
 ison), from 97.3 and 99.2 to 9.3 and 3.4% at 242 and 282°
 resp. The initial catalytic activity was restored by heating
 the catalysts at 300° for 30 min. in air and at 450° for 10
 min. in air + H_2 . Palladium-platinized nichrome was similarly
 poisoned and was regenerated at 400–450° in air + 10% H_2 .
 Poisoned platinumized nichrome could not be regenerated.
 Similar effects were observed in the dehydrogenation of $iso-$
 C_3H_7OH in the presence of 2% AsH_3 or 1% H_2S . The revers-
 ibility of the poisoning reaction is emphasized.

KOTELKOV, N. Z.; KOTELKOV, V. N.;

A unit for the potentiometric determination of pH. Zav. lab.
21 no. 4:501 '55. (MLRA 8:6)

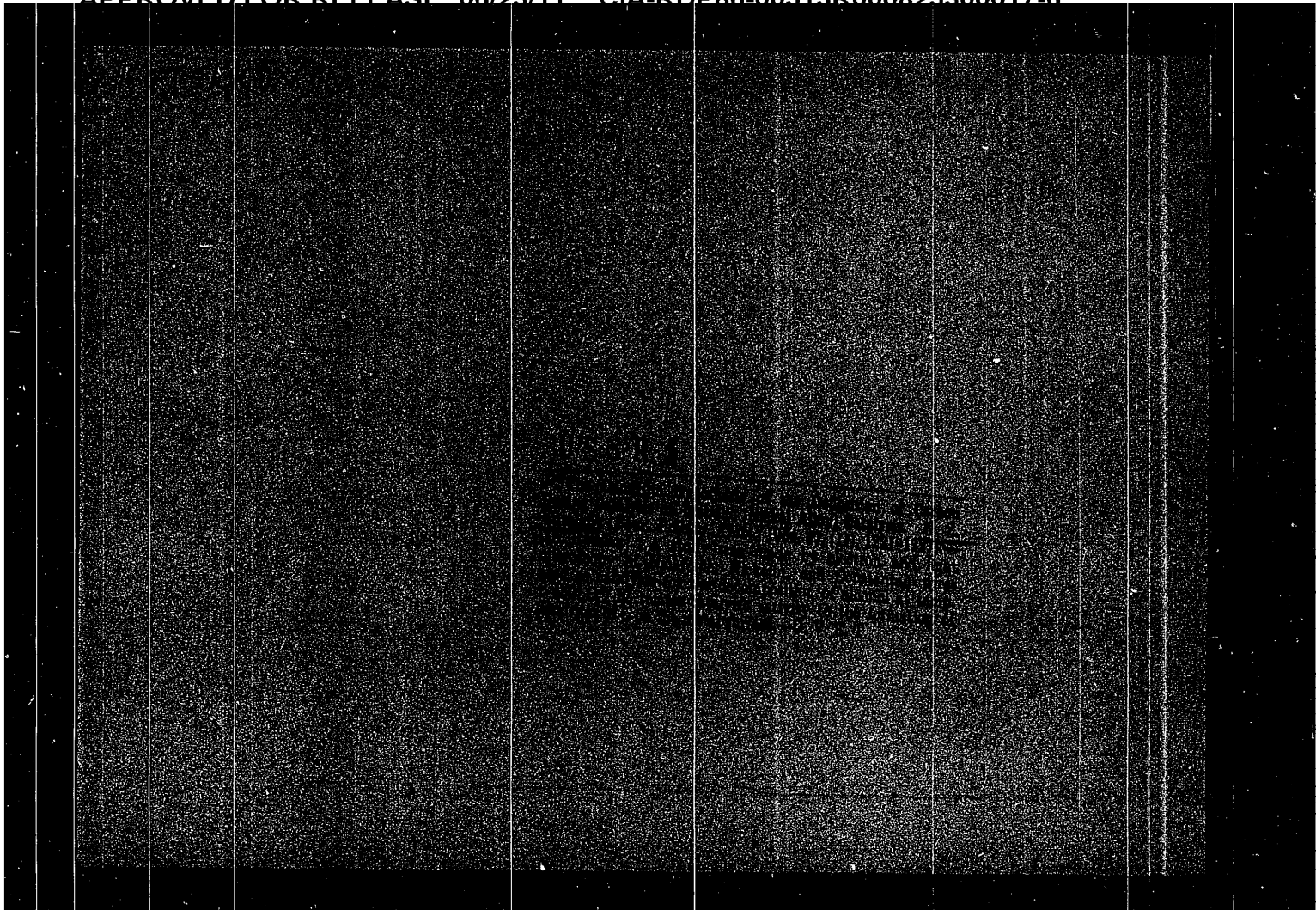
1. Saratovskiy sel'skokhozyaystvennyy institut
(Potentiometric analysis) (Hydrogen-ion concentration)

Kotel'kov, N. Z.

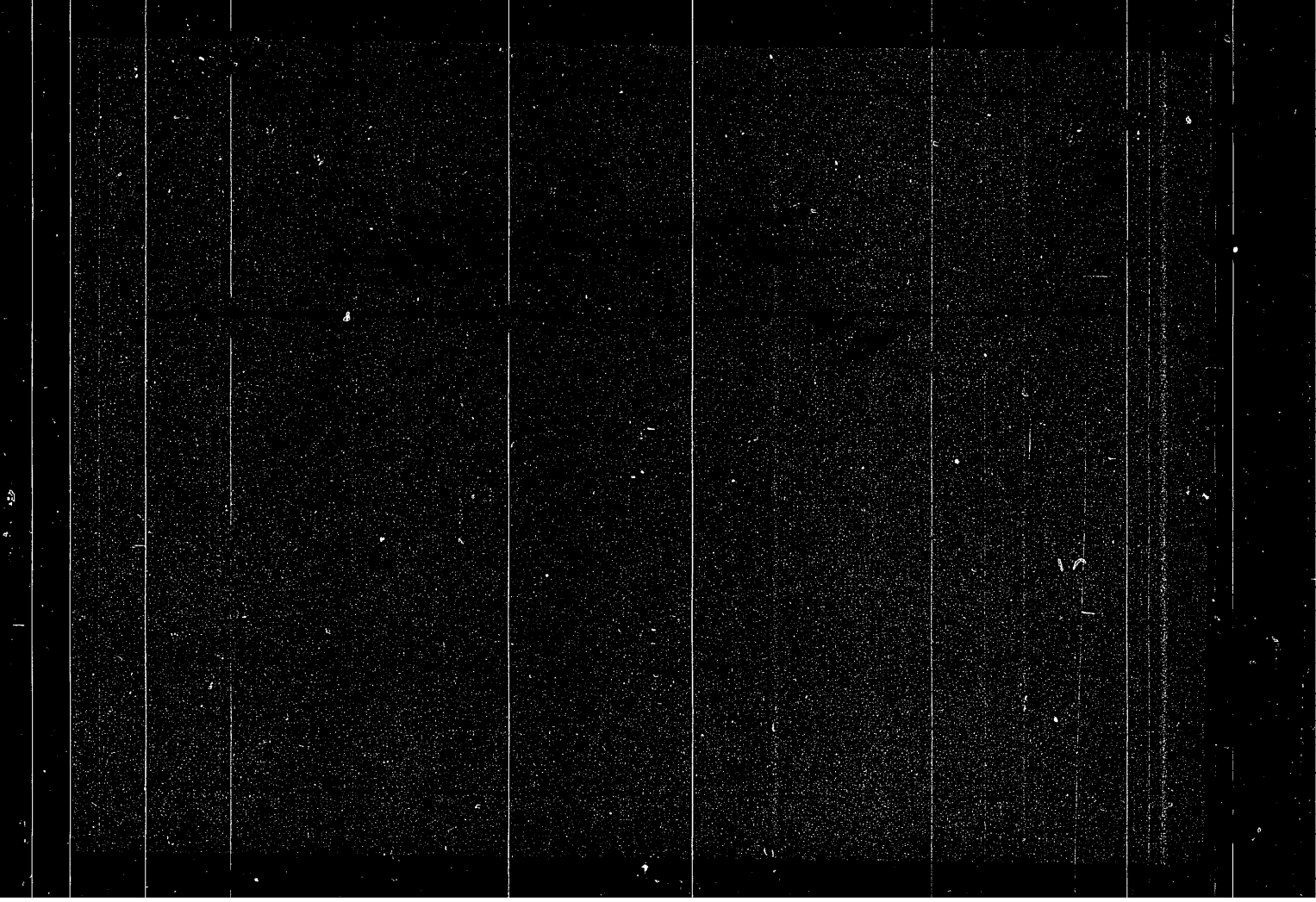
USSR.

X-ray diffraction and electron-microscopic analyses of catalysts: nichrome, platinum-nichrome and clay. N. Z. Kotel'kov (Leningrad, U.S.S.R.). *Eng. Probl. Chem. 27* (1957) 107-110. X-ray diffraction and electron-micrographs of platinum-nichrome wires before and after 400 hrs. activity showed that the surfaces covered with minute Pt crystals. The surface of the wire exposed to catalytic activity showed some fusion, and some Pt was chipped off and carried away. The lattice parameters were somewhat enlarged, from 3.905 to 3.916 Å. Electron micrographs, 50,000 magnification, of nichrome plates treated in several manners were taken and compared with one another and with platinized glass. The results are analyzed in the light of catalytic experience. An explanation of the cause of catalytic activity of Voronezh clay (cf. C.A. 46, 7869d) was sought in powder diffraction diagrams. Out of 60 lines only 24 remained unidentified. The cause of its catalytic activity is ascribed to the presence of Fe-doped quartz, probably montmorillonite. I. B.

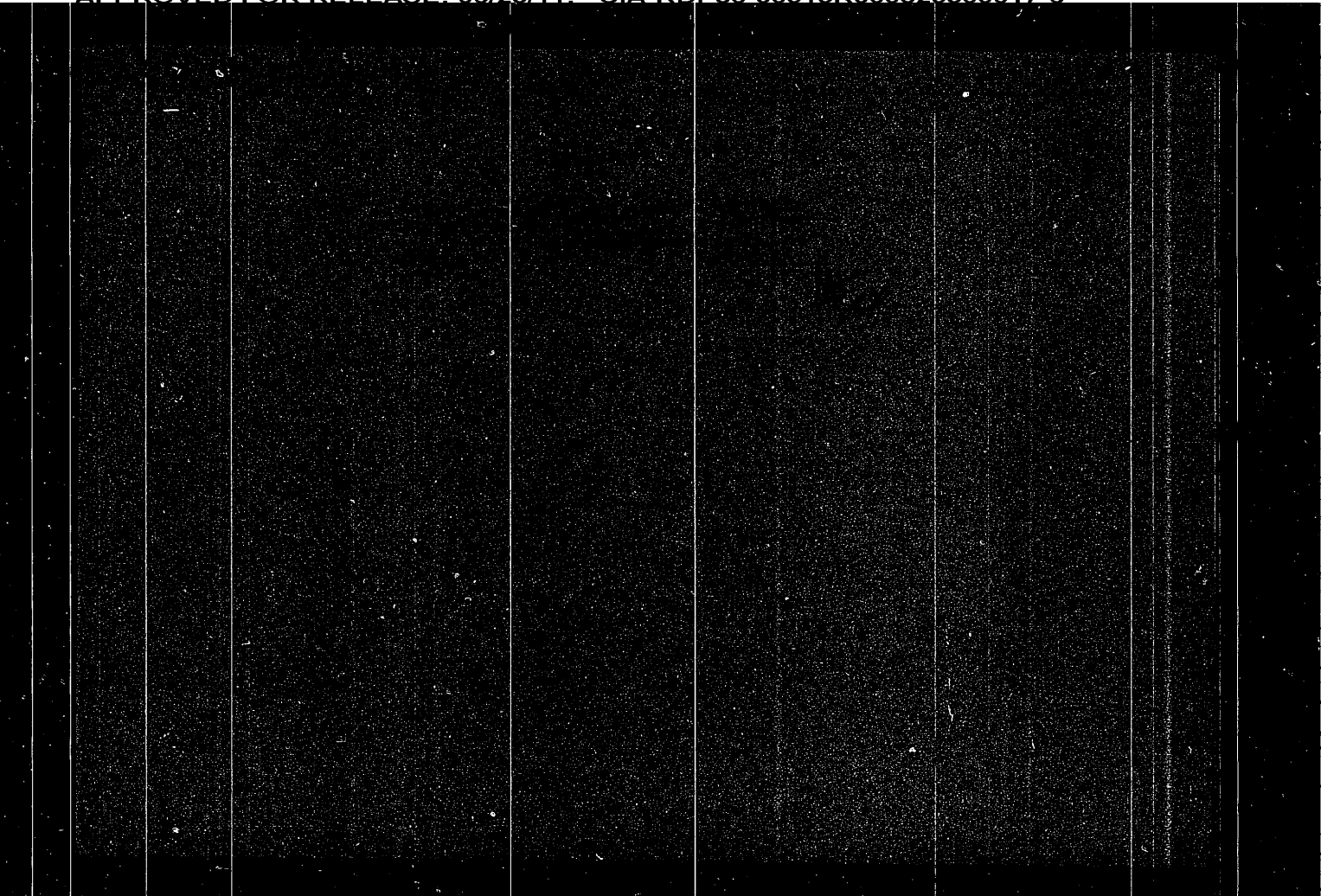
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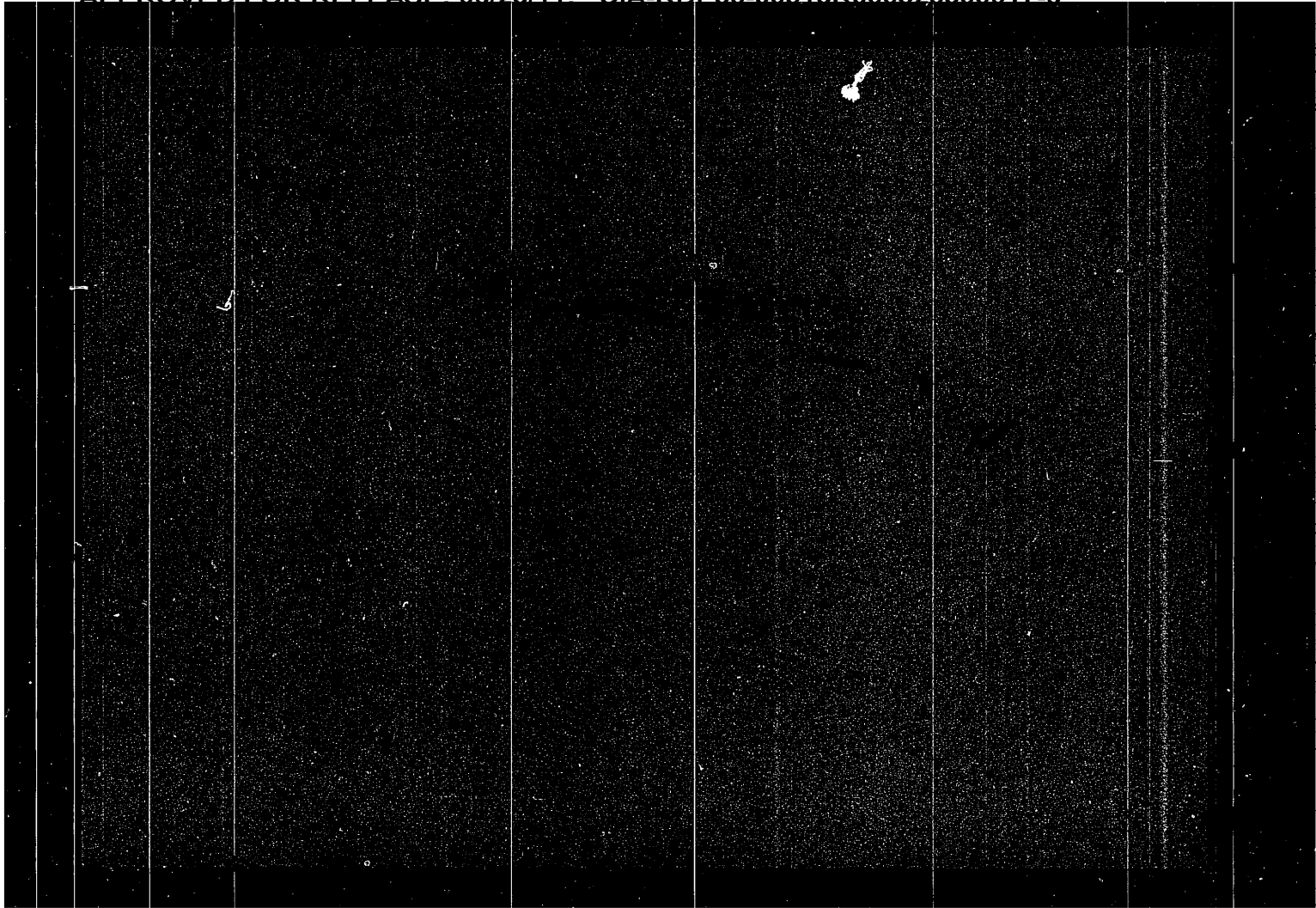
Kotelkov, N. Z.

USSR

Splitting off of water from isopropanol when its mixtures with water are passed over Nichrome (wire). N. Z. Kotelkov (Zh. prikl. Khim., 1984, 27, 1090-1093). Velocity of reaction for mixtures containing 0-30% of water passed over carbonized Nichrome wire at 250-360° is given by $d\alpha/dt = K(M-a)^{1/2}$, where a is moles of propane produced in unit time from 10 moles of $PrOH$ introduced.

R. TAVASCOV

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300017-6



1. **James Earl Ray**, 36, of 1001 S. Main St., St. Louis, Mo., was arrested on a charge of first-degree murder on May 15, 1968, after a 10-day search for the man who shot and killed Dr. Martin Luther King Jr. in Memphis, Tenn., on April 4.

2. **Ray** was arrested by St. Louis police after a tip from a confidential source. He was taken to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

3. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

4. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

5. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

6. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

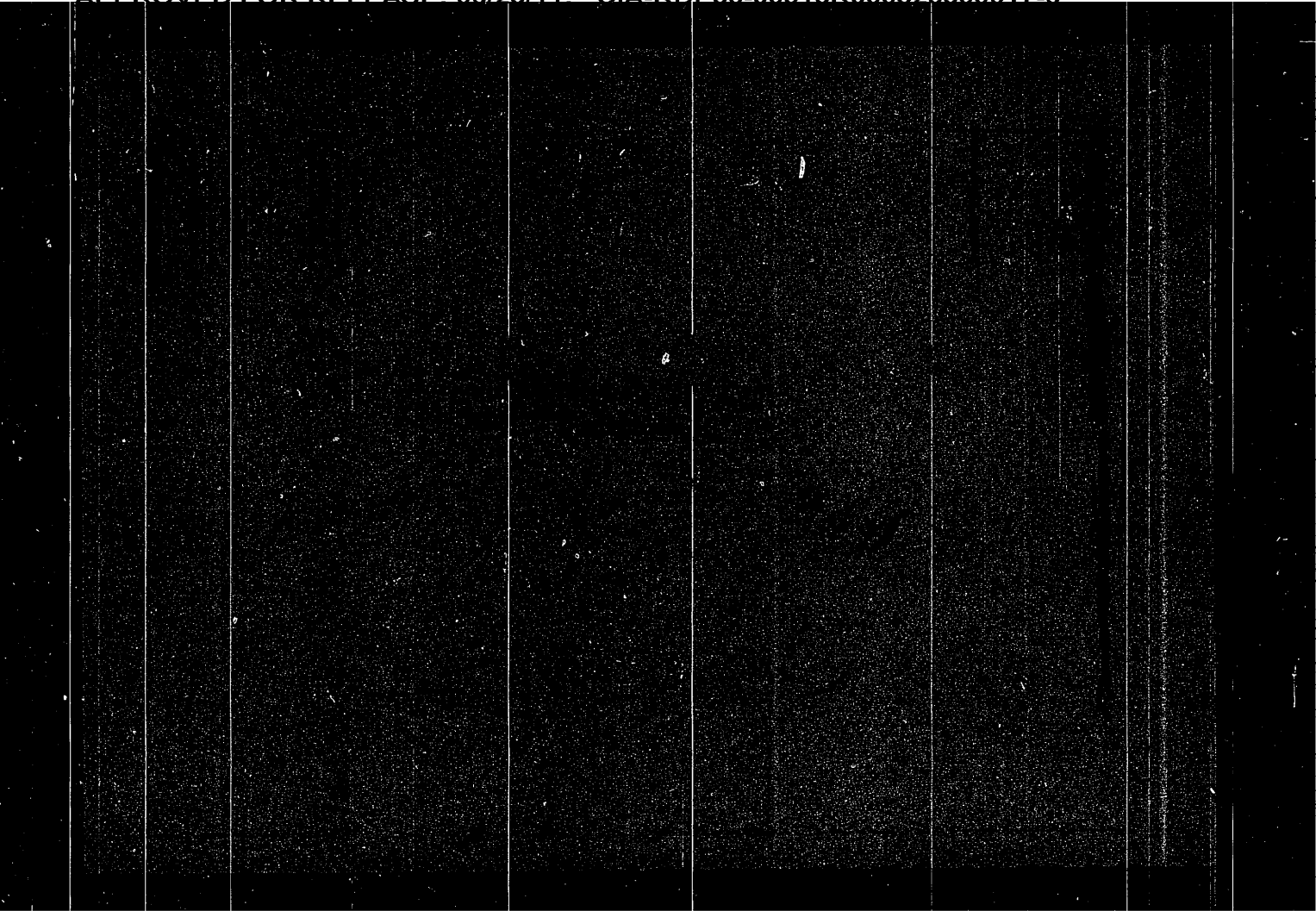
7. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

8. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

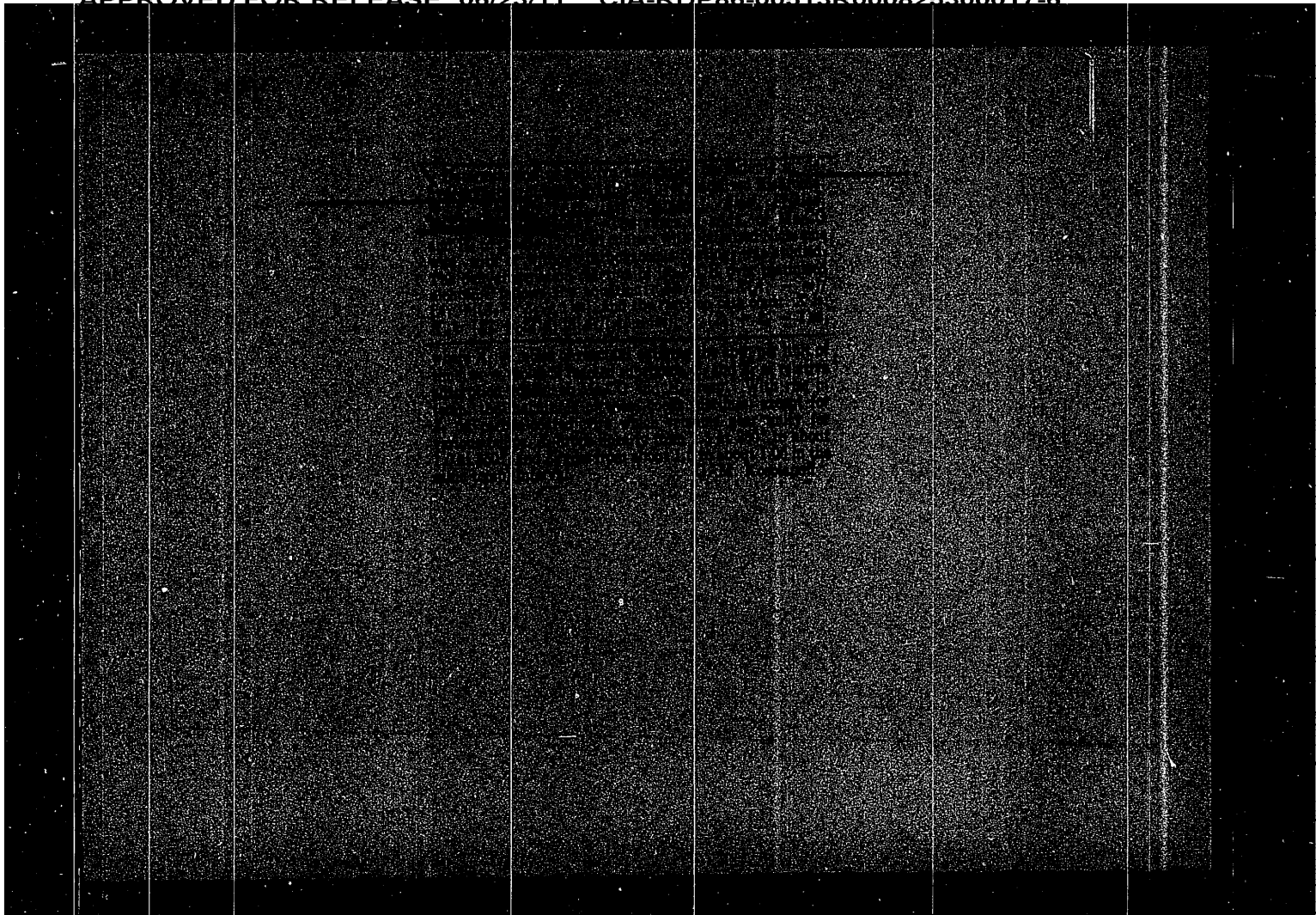
9. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

10. **Ray** was charged with the murder of Dr. King and was held in the Federal House of Detention. He was later moved to the St. Louis County Jail, where he was held for a period of 10 days before being transferred to the Federal House of Detention in St. Louis.

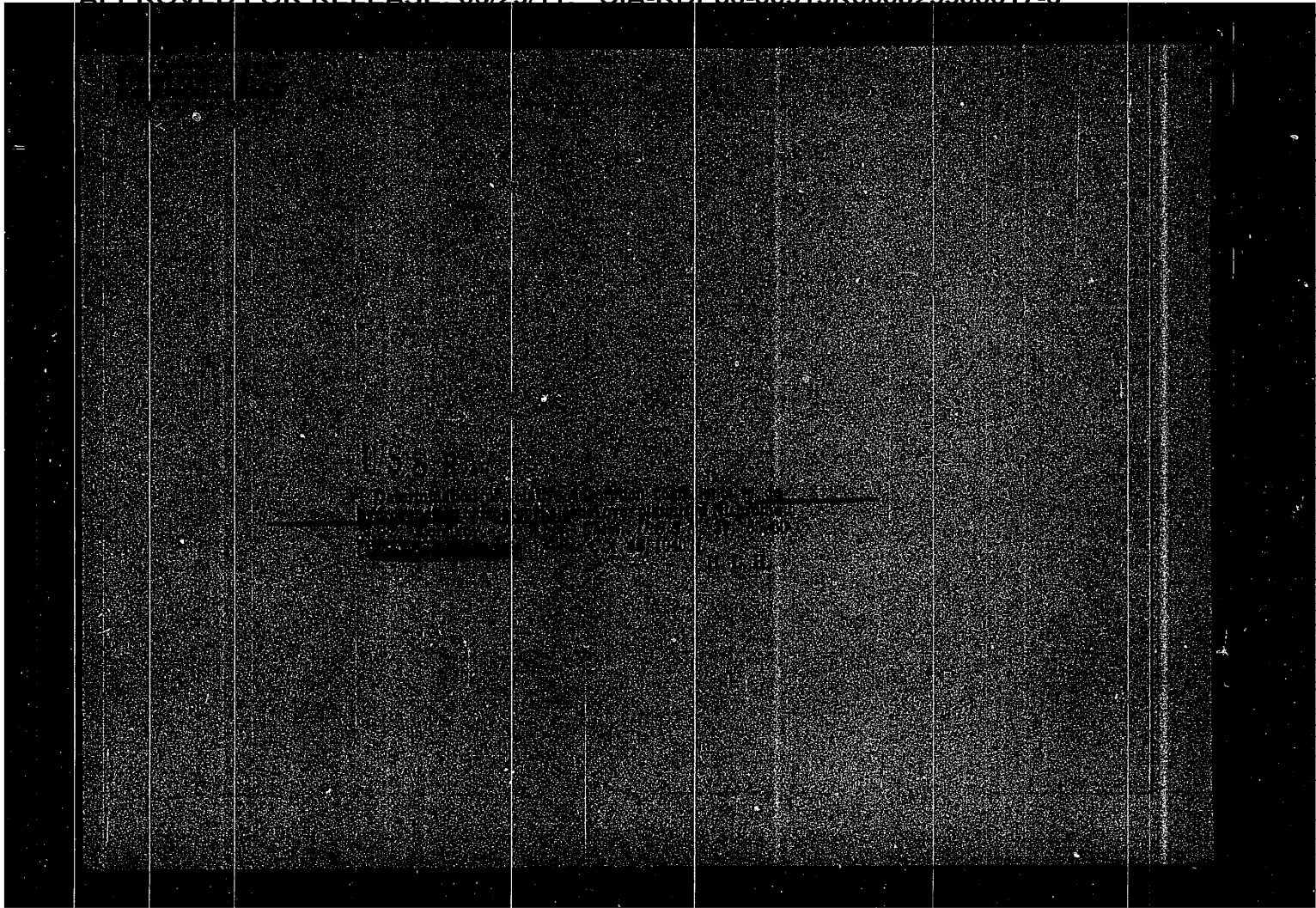
APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300017-6



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APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R000825300017-6



KOTELKOV, N. Z.

Catalysis

Catalysis and decomposition of isopropyl alcohol on complex coils. Zhur. prikl. khim. 26, No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, _____ June _____ 1953, Uncl.

KOTEL'KOV, N. Z.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Fuels and Carbonization Products
Catalysts

① fuels
✓ Catalytic properties of some activated carbons, (N. Z.)
Kotel'kov, J. Appl. Chem. U.S.S.R. 28, 819 (1954)
(Engl. translation) - See C.A. 47, 5044c. H. L. H.

8-31-54
JH

KOTELKOV, N. Z.

USSR/Chemistry - Catalysts

Mar 52

"The Catalytic Properties of Some Activated Carbons," N. Z. Kotelkov, Chair of Chem, Saratov Agr Inst

"Zhur Prik Khim" Vol XXV, No 3, pp 337-341

Expts were carried out on the dehydrogenating properties of some active carbons and dendrite carbons (carbons formed as dendrites in the catalytic decompn of org materials) on nichrome spirals. The carbons obtained from waste products of furfural production were found to be the most active, producing dehydrogenation of isopropyl alc to the extent of 90.5% at 400°.

207T37

KOTELKOV, N. Z.

CATALYST

Chemical Abst.

Vol. 48 No. 9

May 10, 1954

General and Physical Chemistry

✓ Space velocity in heterogeneous catalysis. N. Z. Kotelkov. *J. Appl. Chem. U.S.S.R.* 25, 177-83 (1952) (English translation). See *C.A.* 47, 47186.
H. L. H.

① Chem

9-2-54
JP

KOTELKOV, N. Z.

Chemical Abst.
Vol. 48 No. 8
Apr. 25, 1954
Analytical Chemistry

(3) chem
✓ Determination of the water content of some alcohols
N. Z. Kotelkov and K. P. Kotelkova (Saratov Agr. Inst.)
J. Anal. Chem. (U.S.S.R.) 7, 80-85 (1952) (Engl. transla-
tion).—See C.A. 47, 1530e.
H. W. H.
9-2-54
H.P.

KOTELKOV, N. Z.

USSR/Chemistry - Hydrocarbons

Mar/Apr 52

"The Quantitative Determination of the Dehydration of Some Alcohols," N. Z. Kotelkov, K. P. Kotelkova, Saratov Agr Inst

"Zhur Analit Khim" Vol VII, No 2, pp 78-83

The expts were conducted on the catalytic dehydration of ethyl, isopropyl, and propyl alcs. The connection between the percentual compn and the index of refraction of binary aq alc mixts was studied. The refraction method can be used successfully for quant detn of the deg of dehydration of some alcs, especially when the dehydration exceeds 40-60 percent.

209T10

CA

2

Dehydrating properties of some clays and opoka. N. Z. Kotelkov (Saratov Agr. Inst.). *Zhur. Priklad. Khim.* 24, 370-382 (1951).—Alc. dehydration over clay and opoka (rock consisting of SiO_2 and plastic material) catalysts was studied at 250–450°, with alc. flow of 0.05–0.3 ml./min. The extent of dehydration varied directly with the amt. of catalyst, it was nearly 100% for 11 g. catalyst. The rate of reaction followed the Arrhenius equation. The energy of activation was about 14.50 cal./mole. The process proceeded without side reactions. A temp. of 350° was about the optimum. In the case of Voronezh clays, there was an induction period, during which the activity increased by about 4%; the activity reached a max. after 30 hrs., and remained const. for about 60 hrs. The catalysts are easily regenerated with alc. Application of the catalyst on a spiral increased its activity about 8-fold. The best rate of alc. flow was 0.1 ml./min. R. Z. Kamich

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8211* Compound Helices as Carriers for Catalysts. (In Russian.) N. Z. Kotelkov. *Zhurnal Prikladnoi Khimii* (Journal of Applied Chemistry), v. 24, Feb. 1951, p. 205-210.

Experimental investigation established, in certain cases, the applicability of the above, made of wires of various metals or alloys. Nichrome was found to be the best carrier for Pt and Pd and for Al_2O_3 and clay. An Al helix coated chemically with Al_2O_3 is the best catalyst for dehydrogenation. Design of helices is illustrated by a photograph. Results of investigation are tabulated.

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